



In re the Application of:

Art Unit: 2836

Examiner: LEJA, R.W.

For: DEVICE AND METHOD FOR
PROTECTION OF HEATING,
VENTILATION AND AIR
CONDITIONING CONTROL
CIRCUITS FROM OVERCURRENTS

RECEIVED
JUL 12 1999
TECHNOLOGY CENTER 2800

Dear Sir:

Dennis Mitchell declares as follows:

1. I am the inventor of the subject matter of the above-defined patent application.

2. I have been a practicing heating, ventilation and air conditioning (HVAC)

technician for the past 21 years. I am presently employed in such capacity by Air Star Heating & Air Conditioning, San Antonio, Texas. I have successfully completed training in HVAC system design, installation, and service at Sam Houston High School, San Antonio, Texas. I also worked as an instructor in HVAC system design, installation, and service at Careercom, San Antonio, Texas.

3. Systems referred to as HVAC systems are understood by those of us involved in the industry to be heating and cooling systems installed in residential and commercial buildings at fixed sites. The control circuits for HVAC systems operate at 24 volts

alternating current (VAC). Both of these characteristics (fixed site and alternating current power) distinguish HVAC control circuits from 24 volts *direct* current (VDC) vehicle systems.

4. Those persons, such as myself, professionally skilled in the art of HVAC system design, installation, and repair normally are not similarly skilled in the art of design, installation and repair of vehicular ventilation systems. Still further, because of fundamental differences between the two types of systems, those persons skilled in the aspects of HVAC would not look to the vehicle ventilation arts when designing HVAC systems or when studying solutions to HVAC problems.

5. As long as heating, ventilation, and air conditioning (HVAC) control circuits have used 24 VAC for control voltage, the usage of a one time blown fuse has been adequate for current protection to protect control voltage loads from being damaged from direct shorts or over currents. Conventional circuit breakers, while addressing the one-time nature of a regular fuse, still require manual resetting. The need for an automatic resettable type of current protection for intermittent or over current problems in HVAC control circuits has long been known, but until my claimed solution, no such solution was known. Positive temperature coefficient devices have been available for some time now, but their use in alternating current HVAC control circuits in fixed site installations has not been proposed before, even though their utilization is highly advantageous as claimed by myself.

6. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001, and that such willful false statements may jeopardize the validity of the above referenced application or any patent issuing thereon.


Dennis Mitchell

7-2-99
Date